REMARKS/ARGUMENTS

Prosecution Status

Claims 1-78 are pending in the present application. In an Office Action of April 7, 2005, all claims were rejected. Applicants traverse the rejections as follows.

Rejections under 35 USC § 102

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Tsunehara

Claims 1-78 were rejected under 35 USC § 102(e) as anticipated by U.S. Patent Application Publication No. US2002/0132626 to Tsunehara et al. ("Tsunehara"). The rejections are traversed.

With regard to claims 1-10, 21-30, 41-50, and 61-68, Tsunehara never determines a first reliability indicator from the signals for a first measurement, representing a level of measurement false alarm probability for the first measurement. There is never a reliability indicator determined in Tsunehara. Tsunehara does not anticipate each claim element of the respective independent claims. (See also the discussion following regarding the remaining claims.)

With regard to claims 11-15, 31-35, 51-55, and 69-73, Tsunehara never determines a false alarm indicator representing a level of measurement false alarm probability for each of a plurality of measurements, nor combines a plurality of these indicators. Tsunehara determines a weight to be given to a final position determined using GPS and a weight to be given to a final position determined using cellular signals. Tsunehara, paragraphs [0018]-[0019]. The determination of a position occurs by processing measurements. This reference

never combines a plurality of measurement false alarm indicators to determine reliability of a position. The weights used by Tsunehara are based upon a tally of the number of satellites and received satellite signal quality to determine a weight to be given to the GPS position determination. Id., paragraph [0018]. And, Tsunehara uses a tally of the number of base stations and received base station signal quality to determine a weight to be given to the cellular position determination. Id., paragraph [0019]. Tsunehara does not anticipate each claim element of the respective independent claims.

With regard to claims 16-20, 36-40, 56-60, and 74-78, as set out above, Tsunehara never determines false alarm indicators determined respectively for a plurality of measurements individually, only a weight to be given to a final position determination. Also, Tsunehara never eliminates one of a plurality of measurements from position determination using a plurality of *a priori* false alarm indicators in response to a determination that the plurality of measurements are not consistent. There is nothing in Tsunehara about the consistency of the measurements. Tsunehara does not anticipate each claim element of the respective independent claims.

Brodie

Claims 1-78 were rejected under 35 USC § 102(e) as anticipated by U.S. Patent No. 6,691,066 to Brodie ("Brodie"). The rejections are traversed.

With regard to claims 1-10, 21-30, 41-50, and 61-68, Brodie does not determine a first reliability indicator from the signals for a first measurement, representing a level of measurement false alarm probability for the first measurement. There is never a reliability indicator determined in Brodie. Brodie does not anticipate each claim element of the respective independent claims. (See also the discussion following regarding the remaining claims.)

With regard to claims 11-15, 31-35, 51-55, and 69-73, Brodie only orders measurements according to increasing probability of a measurement fault, for sequential processing. Brodie, col. 6, lines 19-47. "The invention improves measurement fault detection by ordering the processing of measurements in order of increasing probability of a measurement fault, where

we have some means to assess the relative likelihood of a fault on the measurement to be processed, other than the measurement residual itself." Brodie, col. 6, lines 19-24 (emphasis added). "Thus we can say, without quantifying the exact probability of failure, . . ." Brodie, col. 6, lines 31-32 (emphasis added). Brodie does not combine a plurality of measurement false alarm indicators to determine a reliability of a position calculated using a plurality of measurements. Brodie does not anticipate each claim element of the respective independent claims.

With regard to claims 16-20, 36-40, 56-60, and 74-78, in addition to that set forth above, Brodie never eliminates one of a plurality of measurements from position determination using a plurality of *a priori* false alarm indicators in response to a determination that the plurality of measurements are not consistent. There is nothing in Brodie about the consistency of measurements, only a sequential ordering of measurements for processing. Brodie does not anticipate each claim element of the respective independent claims.

Watters

Claims 1-78 were rejected under 35 USC § 102(b) as anticipated by U.S. Patent No. 6,249,245 to Watters et al. ("Watters"). The rejections are traversed.

With regard to claims 1-10, 21-30, 41-50, and 61-68, Watters does not determine a first reliability indicator from the signals for a first measurement, representing a level of measurement false alarm probability for the first measurement. There is never a reliability indicator determined in Watters. Watters does not anticipate each claim element of the respective independent claims. (See also the discussion following regarding the remaining claims.)

With regard to claims 11-15, 31-35, 51-55, and 69-73, Watters never determines a false alarm indicator representing a level of measurement false alarm probability for each of a plurality of measurements, nor combines such indicators. Much like Tsunehara, Watters combines together "location measurements based on available GPS signals with measurements based on cellular infrastructure signals with appropriate regard to the accuracy of each measurement" to produce a weighted averaged position coordinate x. Watters, col. 23, lines

10-27 (emphasis added). No false alarm indicators are determined or combined to determine reliability of position. Watters does not anticipate each claim element of the respective independent claims.

With regard to claims 16-20, 36-40, 56-60, and 74-78, Watters never eliminates one of a plurality of measurements from position determination using a plurality of *a priori* false alarm indicators in response to a determination that the plurality of measurements are not consistent. There is nothing in Watters about the consistency of measurements. Watters does not anticipate each claim element of the respective independent claims.

Martorana

Claims 1-78 were rejected under 35 USC § 102(e) as anticipated by U.S. Patent No. 6,486,831 to Martorana et al. ("Martorana"). The rejections are traversed.

With regard to claims 1-10, 21-30, 41-50, and 61-68, Martorana does not determine a first reliability indicator from the signals for a first measurement, representing a level of measurement false alarm probability for the first measurement. There is never a reliability indicator determined in Martorana. Martorana does not anticipate each claim element of the respective independent claims. (See also the discussion following regarding the remaining claims.)

With regard to claims 11-15, 31-35, 51-55, and 69-73, Martorana never determines a false alarm indicator representing a level of measurement false alarm probability for each of a plurality of measurements, nor combines such indicators. Martorana screens range measurements "so that only acceptable range measurement are supplied to a tracking filter and used to update the position solution." Martorana, col. 4, lines 24-27. There are two screening stages, a coarse screening and a fine screening. Id., col. 4, lines 31-33. "The coarse screening stage includes computing an estimated expected range between the reference radio which sent the measured ranging signal and the local receiving radio based on the positions of the reference and local radios estimated by their respective tracking (Kalman) filters." Id., lines 33-38 (emphasis added). "The fine screening process relies on a comparison of the range measurement to a measurement history, specifically, a fading average of previous range

measurements and the variability of these previous range measurements." Id., lines 47-50 (emphasis added), see also, col. 11, lines 28-31. The coarse screening uses previously known positions of the radios and compares measurements to these known distances. The fine screening is using a moving weighted average with time, i.e. the older a measurement is the less weight it is given. If a measurement is too far afield from previous measurements, it may fail to pass the fine screening. Martorana is comparing measured ranges to predicted ranges, i.e. measured distances to predicted distances. Martorana does not combine a plurality of measurement false alarm indicators. Martorana does not anticipate each claim element of the respective independent claims.

With regard to claims 16-20, 36-40, 56-60, and 74-78, again, Martorana never determines false alarm indicators respectively for a plurality of measurements individually. Martorana compares range values to one another, and does not determine false alarm indicators. Martorana does not anticipate each claim element of the respective independent claims.

Mathis

Claims 1-10, 21-30, 41-50, and 61-68 were rejected under 35 USC § 102(b) as anticipated by U.S. Patent No. 5,311,195 to Mathis et al. ("Mathis"). The rejections are traversed.

Mathis describes a navigation system with relative positioning system (RPS) and absolute position system (APS) receivers. Mathis, col. 3, lines 57-61, Fig. 1. "[T]he RPS computed position of a vehicle and the APS computed position of a vehicle each has associated therewith a contour of equal probability (CEP) and/or a dilution of precision of position error (DOP)." Id., col. 4, lines 26-30.]

> The DOP is a dimensionless factor, the magnitude of which depends on the arrangement of GPS transmitters used for obtaining a reported GPS position and its direction from the reported position. It is the factor by which a CEP, described below, associated with an ideal arrangement of APS signal transmitters is modified as a result of a less than ideal arrangement of said transmitters.

Id., lines 31-38 (emphasis added). For instance, "[i]f the then current APS position information is valid, the system computes an APS error estimate (APS CEP) which is equal to a function f1 of APS validity and APS DOP (Block 24)." Id, col. 5, lines 46-49. Mathis never determines a first reliability indicator from the signals for the first measurement, representing a level of measurement false alarm probability for the first measurement. Mathis compares distances and areas determined by the RPS and APS to determine position, in particular where these areas overlap. Id., col. 5, line 49 to col. 6, line 13. Mathis does not anticipate each claim element of the respective independent claims.

CONCLUSION

Applicants respectfully request that the Examiner reconsider the outstanding rejections and that these rejections be withdrawn. It is believed that a complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of the application, the Examiner is invited to telephone the undersigned at the number provided.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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